



[7590-01-P]

## NUCLEAR REGULATORY COMMISSION

[Docket Nos.: 50-317 and 50-318; NRC-2012-0183]

**Calvert Cliffs Nuclear Power Plant, LLC;**

**Calvert Cliffs Nuclear Power Plant, Units 1 and 2;**

### **Exemption**

#### 1.0 BACKGROUND

Calvert Cliffs Nuclear Power Plant, LLC (the licensee) is the holder of Renewed Facility Operating License Nos. DPR-53 and DPR-69, which authorizes operation of the Calvert Cliffs Nuclear Power Plant, Units 1 and 2 (Calvert Cliffs). The licenses provide, among other things, that the facility is subject to all rules, regulations, and orders of the U.S. Nuclear Regulatory Commission (NRC or the Commission) now or hereafter in effect.

The facility consists of two pressurized-water reactors (PWRs) located in Calvert County, Maryland.

#### 2.0 REQUEST/ACTION

Title 10 of the *Code of Federal Regulations* (10 CFR) Part 26, Subpart I requires licensees to establish a policy for the management of fatigue for all individuals who are subject to the licensee's fitness for duty program. Regulatory Guide 5.73, "Fatigue Management for Nuclear Power Plant Personnel," endorses the Nuclear Energy Institute (NEI) report NEI 06-11, revision 1, "Managing Personnel Fatigue at Nuclear Power Plants," with clarifications, additions and exceptions. NRC staff has endorsed this guidance for use during a plant emergency. After exiting the emergency, the licensee is immediately subject to the scheduling requirements of 10 CFR 26.205(c) and the work hour/rest break/minimum day off requirements of 10 CFR

26.205(d). All time worked during the emergency must be tracked to help ensure that individuals are not fatigued on the first day of reinstated work hour controls per 10 CFR 26.205(b)(3). On June 2, 2010, during a lessons learned public meeting regarding Part 26 Subpart I exemption request submissions, work hour controls during periods of severe winds such as a tropical storm or hurricane, the NRC staff indicated that it finds NEI 06-11 Section 7.5 "Reset from Deviations" to be an acceptable method for resuming work hour controls after the recovery period.

Section 26.205(b) contains the requirement to count work hours and days worked; and (b)(2) was reviewed to understand if the licensee had provided a reasonable opportunity and accommodations for restorative sleep.

Calvert Cliffs is located along the western shore of the Chesapeake Bay and can be impacted by tropical storms and hurricanes during the hurricane season and severe winter precipitation conditions during January and February. By letter dated July 21, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML11203A513), as supplemented by letter dated March 1, 2012 (ADAMS Accession No. ML12065A182) and electronic mail dated July 10, 2012 (ADAMS Accession No. ML12193A488), the licensee requested an exemption from the requirements of 10 CFR 26.205(c) and (d) for meeting work hour rule controls during declarations of severe weather conditions involving tropical storm or hurricane force winds or severe winter precipitation. According to the application, adherence to work hour control requirements could impede the ability to respond to an emergency condition at the site when travel to and from the site may be impeded. Specifically, the exemption would allow Calvert Cliffs to sequester sufficient individuals to staff two 12-hour shifts to maintain safe and secure operation during severe weather conditions.

### 3.0 DISCUSSION

Pursuant to 10 CFR 26.9, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 26

when the exemptions are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest.

### 3.1 Exemption from Sections 26.205(c) and (d)

Pursuant to 10 CFR 26.207(d), licensees need not meet the requirements of Section 26.205(c) and (d) during declared emergencies as defined in the licensee's emergency plan. The entry condition for the Calvert Cliffs declaration of an Unusual Event is a sustained wind speed greater than 75 miles per hour (mph). The criteria for sequestering essential personnel include travel conditions forecasted to be hazardous for employee commutes to and from the site such as sustained wind speeds greater than 40 mph as determined by the National Weather Service. Therefore, the exemption request covers a period which precedes the declared emergency, as individuals need to be sequestered before the severe weather conditions. Similarly, the entry conditions for severe winter weather are based on forecasts issued by the National Weather Service. The entry conditions include the issuance of a winter storm watch, a blizzard warning or an ice storm warning by the National Weather Service. A winter storm watch is issued by the National Weather Service when there is a potential for heavy snow or significant ice accumulations, usually 24 to 36 hours in advance. A winter storm warning is issued by the National Weather Service when a winter storm is producing or is forecasted to produce heavy snow or significant ice accumulations. Blizzard warnings are issued for winter storms with sustained or frequent winds of 35 mph or higher with considerable falling and/or blowing snow that frequently reduces visibility to 1/4 mile or less. An example of the severity of a winter storm that would likely rise to the level of a winter storm warning or watch for the area surrounding Calvert Cliffs is one that is expected to produce an accumulation of 12 inches or more of snow.

### 3.2 Recovery Exemption Immediately Following a Severe Weather Exemption

The period immediately following the severe weather conditions may require a recovery period. Also, high winds and inadequate road conditions that make travel unsafe, but fall below the threshold of an emergency, could be present for several days. After the severe weather condition has passed, sufficient numbers of personnel may not be able to access the site to relieve the sequestered individuals. An exemption during these conditions is consistent with the intent of the 10 CFR 26.207(d).

### 3.3 Fatigue Management

Calvert Cliffs plans to establish a 12-hour duty schedule comprised of a day shift and a night shift. When personnel are to be sequestered on site, Calvert Cliffs provides arrangements for onsite reliefs and bunking in order to allow for a sufficient period of restorative sleep for personnel. The relief and bunking areas will be developed prior to sequestering personnel. The NRC staff finds the actions presented are consistent with the practice of fatigue management.

### 3.4 Maintenance

The exemption request stated that it would only apply to individuals involved in severe weather response activities that perform duties identified in 10 CFR 26.4(a)(1) through (5). The exemption does not apply to discretionary maintenance activities. The exemption allows the licensee to provide for the use of whatever plant staff and resources are necessary to respond to a plant emergency and ensure that Calvert Cliffs achieves and maintains a safe and secure status and can be safely restarted. Suspension of work hour controls is for site preparation activities and those deemed critical for plant and public safety only. This does not include activities required to actually restart the units following any severe weather condition.

### 3.5 Returning to Work Hour Controls

Calvert Cliffs must return to work hour controls when the plant management determines that adequate personnel are available, and both onsite and relief crews have had sufficient time off before resuming their normal work duties. Upon exiting the exemption, the work hour controls in Section 26.205(c) and (d) apply, and the requirements in Section 26.205(3)(b) must be met.

### 3.6 Authorized by Law

This exemption would allow Calvert Cliffs Calvert Cliffs to sequester sufficient individuals to staff two 12-hour shifts to maintain safe and secure operation during severe weather conditions. As stated above, 10 CFR 26.9 allows the NRC to grant exemptions from the requirements of 10 CFR Part 26. The NRC staff has determined that granting of the licensee's proposed exemption will not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore, the exemption is authorized by law.

### 3.7 Will Not Endanger Life or Property

Section 26.207 provides an exception to the requirements of 10 CFR 26.205(c) and (d) during declared emergencies as defined in the licensee's Emergency Response Plan. The proposed exemption expands that allowance for severe weather conditions involving tropical storm or hurricane force winds or severe winter precipitation that may or may not result in the declaration of an emergency. Such an allowance supports sequestering enough required personnel to provide for shift relief, which is necessary to provide a safe and secure status of the units and ensure adequate protection of the health and safety of plant personnel and the public. Therefore, granting this exemption will not endanger life or property.

### 3.8 Will Not Endanger the Common Defense and Security

The proposed exemption would allow Calvert Cliffs Calvert Cliffs to sequester sufficient individuals to staff two 12-hour shifts to maintain safe and secure operation during severe

weather conditions. This change to the operation of the plant has no relation to security issues. Therefore, the common defense and security is not impacted by this exemption.

### 3.9 In the Public Interest

The proposed exemption expands an exception already provided in 10 CFR 26.207, which allows the requirements of 10 CFR 26.205(c) and (d) to not be met during declared emergencies as defined in the licensee's Emergency Response Plan. The exemption is needed for a unique set of circumstances to (1) ensure that the control of work hours and management of worker fatigue does not impede the ability to use available staff resources to respond to severe weather threat and (2) ensure that the plant maintains a safe and secure status. Therefore, the public interest is served by this focus on nuclear safety and security.

### 4.0 ENVIRONMENTAL CONSIDERATION

The exemption would authorize exemption from the requirements of 10 CFR 26.205(c) and (d) to allow Calvert Cliffs Calvert Cliffs to sequester sufficient individuals to staff two 12-hour shifts to maintain safe and secure operation during severe weather conditions. Using the standard set forth in 10 CFR 50.92 for amendments to operating licenses, the NRC staff determined that the subject exemption sought involves employment suitability requirements. The NRC has determined that this exemption involves no significant hazards considerations:

(1) The proposed exemption is administrative in nature and is limited to allowing a temporary exception from meeting the requirements of 10 CFR 26.205(c) and (d) during severe weather to ensure that work hour controls do not impede the ability to use available staff resources to respond to a severe weather event. The proposed exemption does not make any physical changes to the facility and does not alter the design, function or operation of any plant equipment. Therefore, issuance of this exemption does not significantly increase the probability or consequences of an accident previously evaluated.

(2) The proposed exemption does not make any changes to the facility and would not create any new accident initiators. Therefore, this exemption does not create the possibility of a new or different kind of accident from any accident previously evaluated.

(3) The proposed exemption does not alter the design, function or operation of any plant equipment. Therefore, this exemption does not involve a significant reduction in the margin of safety.

Based on the above, the NRC has concluded that the proposed exemption does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92, and accordingly, a finding of "no significant hazards consideration" is justified.

The NRC staff has also determined that the exemption involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite; that there is no significant increase in individual or cumulative occupational radiation exposure; that there is no significant construction impact; and there is no significant increase in the potential for or consequences from a radiological accident. Furthermore, the requirement from which the licensee will be exempted involves scheduling requirements. Accordingly, the exemption meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(25). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is required to be prepared in connection with the issuance of the exemption.

## 5.0 CONCLUSION

The Commission has determined that granting these exemptions is consistent with 10 CFR 26.207(d), "Plant Emergencies," which allows the licensee to not meet the requirements of

10 CFR 26.205(c) and (d) during declared emergencies as defined in the licensee's emergency plan. The 10 CFR Part 26 Statement of Consideration (73 FR 17148; March 31, 2008), states that "Plant emergencies are extraordinary circumstances that may be most effectively addressed through staff augmentation that can only be practically achieved through the use of work hours in excess of the limits of § 26.205(c) and (d)."

Accordingly, the Commission has determined that, pursuant to 10 CFR 26.9, the exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the Commission hereby grants the licensee an exemption from the requirements of 10 CFR 26.205(c) and (d) for Calvert Cliffs.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will not have a significant effect on the quality of the human environment.

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 31st day of July 2012.

FOR THE NUCLEAR REGULATORY COMMISSION

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